

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1234-07
FROM	Dianne Theriault	SHIFT:	0630 to 1800
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	24 th November, 2008		Terry Smith, ALL-TECH
		STPA NO.	COCW-0007

**SUBJECT: 21st November, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Coke Ovens Vertical Cutoff Walls
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 21st of November, 2008. Tyler Rowe and Jennifer Andrews of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly sunny
- Temperature: approximately 2°C
- Wind Direction: West

Comments: *ALL-TECH was on-Site at 0630 and sampling began as soon as there was site activity. Air monitoring was performed during EarthTech's construction activities.*

All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

All downwind and upwind measurements of Total Volatile Organic Compounds (TVOC) were below the established Site Action Level for this parameter of 0.66 ppm. Each measurement is the average of a 15 minute sample. A minimum of 2 samples were taken downwind and 1 sample upwind every hour. All measurements were found to be below the detection limit of the instrument. Levels above detection limit will be noted in the table below.

Due to operational criteria, during periods of precipitation (snow and rain) and high humidity, TVOC sampling is halted and resumes after the precipitation has ended.

This report has been prepared by Tyler Rowe and reviewed by Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Dianne Theriault, B.Tech
Environmental Technologist
ALL-TECH Environmental Services Cape Breton Ltd.

Copied via e-mail:

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Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Coke Ovens Vertical Cutoff Walls
21st November, 2008

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 40m West of Victoria Road bridge	0700	155	5	West	Upwind	Background	No observations seen to affect sampling integrity
2 60m South of Lingan Road and Spar Road intersection	0700	155	12	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 60m South of Lingan Road and Spar Road intersection	0730	155	13	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
4 40m West of Victoria Road bridge	0800	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
5 60m South of Lingan Road and Spar Road intersection	0800	155	5	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 60m South of Lingan Road and Spar Road intersection	0815	155	5	West	Downwind	Machines moving material	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM₁₀ Action Level (µg/m³)	Average Result (µg/m³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
7 40m West of Victoria Road bridge	0900	155	2	West	Upwind	Background	No observations seen to affect sampling integrity
8 60m South of Lingan Road and Spar Road intersection	0900	155	5	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 60m South of Lingan Road and Spar Road intersection	0915	155	5	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
10 40m West of Victoria Road bridge	1000	155	5	West	Upwind	Background	No observations seen to affect sampling integrity
11 60m South of Lingan Road and Spar Road intersection	1000	155	10	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
12 60m South of Lingan Road and Spar Road intersection	1020	155	6	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
13 40m West of Victoria Road bridge	1100	155	2	West	Upwind	Background	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
14 60m South of Lingan Road and Spar Road intersection	1100	155	5	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 60m South of Lingan Road and Spar Road intersection	1115	155	5	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
16 40m West of Victoria Road bridge	1200	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
17 60m South of Lingan Road and Spar Road intersection	1200	155	4	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
18 60m South of Lingan Road and Spar Road intersection	1220	155	5	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
19 40m West of Victoria Road bridge	1300	155	2	West	Upwind	Background	No observations seen to affect sampling integrity
20 60m South of Lingan Road and Spar Road intersection	1300	155	5	West	Downwind	Workers using hand tools	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM₁₀ Action Level (µg/m³)	Average Result (µg/m³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
21 60m South of Lingan Road and Spar Road intersection	1315	155	4	West	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
22 40m West of Victoria Road bridge	1400	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
23 60m South of Lingan Road and Spar Road intersection	1400	155	6	West	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
24 60m South of Lingan Road and Spar Road intersection	1420	155	7	West	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
25 40m West of Victoria Road bridge	1500	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
26 60m South of Lingan Road and Spar Road intersection	1500	155	4	West	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
27 60m South of Lingan Road and Spar Road intersection	1525	155	6	West	Downwind	Workers using hand tools	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
28 40m West of Victoria Road bridge	1600	155	2	West	Upwind	Background	No observations seen to affect sampling integrity
29 60m South of Lingan Road and Spar Road intersection	1600	155	7	West	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
30 60m South of Lingan Road and Spar Road intersection	1630	155	6	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
31 40m West of Victoria Road bridge	1700	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
32 60m South of Lingan Road and Spar Road intersection	1700	155	5	West	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
33 60m South of Lingan Road and Spar Road intersection	1715	155	13	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity

Notes: Air sample duration for each monitoring event was 15 minutes.

Comparison of Downwind Daily Results for Dust Budget

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
60m South of Lingan Road and Spar Road intersection	0700 to 0759	13	990
60m South of Lingan Road and Spar Road intersection	0800 to 0859	18	990
60m South of Lingan Road and Spar Road intersection	0900 to 0959	23	990
60m South of Lingan Road and Spar Road intersection	1000 to 1059	31	990
60m South of Lingan Road and Spar Road intersection	1100 to 1159	36	990
60m South of Lingan Road and Spar Road intersection	1200 to 1259	41	990
60m South of Lingan Road and Spar Road intersection	1300 to 1359	46	990
60m South of Lingan Road and Spar Road intersection	1400 to 1459	53	990

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
60m South of Lingan Road and Spar Road intersection	1500 to 1559	58	990
60m South of Lingan Road and Spar Road intersection	1600 to 1659	65	990
60m South of Lingan Road and Spar Road intersection	1700 to 1759	70	990

VOC Monitoring

Monitoring Method	Yes	No
Sustained Odours Observed		•
P.I.D. Required	•	